

ABSTRACT

Aspects of the invention are directed to a telephony system that is adapted to receive, route, process, and deliver communications data using a cost-effective, user-friendly operations platform and a broadband communication network. For example, the system

5 includes a computer server arrangement and a plurality of endpoint devices communicatively coupled to one or more communication channels comprising an Internet protocol (IP) network. Packet-based (VoIP) calls are transmitted over an IP network, and translated to standard PSTN call signals when necessary. The broadband telephony system of the present invention utilizes each user's own IP network endpoint device as not only

10 each user's local gateway onto the IP network, but also as a remote gateway for bridging other user's calls from the IP network to a local PSTN network in order to reach non-users. Users access the VoIP network of the present invention using the user-owned equipment (as a VoIP network endpoint device) they already have in place for accessing the Internet through a broadband channel. Additionally, the VoIP-based telephony system of the present

15 invention provides an integral means to reach many IP network non-users, thus more-quickly establishing a sufficiently large geographically-distributed communications system. According to a one example embodiment, a broadband telephony system includes a plurality of remote endpoint devices coupled to a broadband data network, and a plurality of remote PSTNs coupled between the plurality of remote endpoint devices and a plurality of remote

20 audio interfaces. Each remote endpoint device is coupled to one remote PSTN, each remote PSTN is coupled to more than one remote endpoint device, each remote PSTN is coupled to at least one remote audio interface, and each remote audio interface is coupled to one remote PSTN. An originating endpoint device is then coupled to a destination audio interface for delivery of an audio signal using a database that is accessible over the broadband data

25 network, for determining an optimized path for the audio signal from the originating endpoint device to the destination audio interface.